

Mr. Samuel H. Bruntz
Warrick Power Plant, AGC Division of Alcoa Power Generating Inc.
P.O. Box 10
Newburgh, IN 47629

Re: Minor Source Modification No:
173-14884-00002

Dear Mr. Bruntz:

Warrick Power Plant, AGC Division of Alcoa Power Generating Inc. applied for a Part 70 operating permit on September 19, 1996 for operation of a power generating plant. An application to modify the source was received on September 18, 2001. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

- (a) New truss belt conveyor, rated at 600 tons of coal per hour;
- (b) New overland belt conveyor receiving transfer tower, rated at 600 tons of coal per hour;
- (c) New overland belt conveyor, rated at 600 tons of coal per hour; and
- (d) New stacking conveyor, rated at 600 tons per hour.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). The source may begin operation upon issuance of the source modification approval.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call Nishat Hydari at (973) 575-2555, ext. 3216, or call (800) 451-6027, press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
NH/EVP

cc: File - Warrick County
U.S. EPA, Region V
Warrick County Health Department
Southwest Regional Office
Air Compliance Section Inspector - Scott Anslinger
Compliance Data Section - Karen Nowak

Administrative and Development - Khira Barua
Technical Support and Modeling - Michelle Boner

PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

**Warrick Power Plant, AGC Division of Alcoa Power Generating Inc.
4700 Darlington Road
Newburgh, Indiana 47629**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Minor Source Modification No.: 173-14884-00002	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a power generation plant.

Responsible Official:	Samuel H. Bruntz, Sr. Environmental Engineer
Source Address:	4700 Darlington Road, Newburgh, IN 47629
Mailing Address:	P.O. Box 10, Newburgh, IN 47629
General Source Phone Number:	(812) 853-6111
SIC Code:	4911
County Location:	Warrick
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) New truss belt conveyor, rated at 600 tons of coal per hour;
- (b) New overland belt conveyor receiving transfer tower, rated at 600 tons of coal per hour;
- (c) New overland belt conveyor, rated at 600 tons of coal per hour; and
- (d) New stacking conveyor, rated at 600 tons per hour.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).
- (c) It is an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are

available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.9 Maintenance of Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less often than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.10 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this permit;
 - (3) The Compliance Monitoring Requirements in Section D of this permit;
 - (4) The Record Keeping and Reporting Requirements in Section C (General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

- (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.11 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.

- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,
Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.12 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.13 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (a) New truss belt conveyor, rated at 600 tons of coal per hour;
- (b) New overland belt conveyor receiving transfer tower, rated at 600 tons of coal per hour;
- (c) New overland belt conveyor, rated at 600 tons of coal per hour; and
- (d) New stacking conveyor, rated at 600 tons per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the PM from this modification shall be limited to 71.16 pounds per hour.

These emissions are established from the following formula:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.2 PSD Limit [326 IAC 2-2] [40 CFR 52.21]

PM and PM-10 emissions from this modification shall be limited to 5.71 and 3.42 pounds per hour, respectively. Compliance with these limits shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for mechanical blasting operations (Anode Butt Blast Machine #1) and its control device.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

**PART 70 SOURCE MODIFICATION
CERTIFICATION**

Source Name: Warrick Power Plant, AGC Division of Alcoa Power Generating Inc.
Source Address: 4700 Darlington Road, Newburgh, IN 47629
Mailing Address: P.O. Box 10, Newburgh, IN 47629
Source Modification No.: 173-14884-00002

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Affidavit (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Mail to: Permit Administration & Development Section
Office of Air Quality
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Warrick Power Plant, AGC Division of Alcoa Power Generating Inc.
P.O. Box 10
Newburgh, Indiana 47629

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make
these representations on behalf of _____.
(Company Name)
4. I hereby certify that Warrick Power Plant, AGC Division of Alcoa Power Generating Inc., 4700 Darlington Road, Newburgh, Indiana, 47629, has constructed the new truss belt conveyor, the new overland belt conveyor receiving transfer tower, the new overland belt conveyor and the new stacking conveyor in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on September 18, 2001 and as permitted pursuant to **Minor Source Modification No. 173-14884-00002** issued on _____.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana

on this _____ day of _____, 20 _____.

My Commission expires: _____

Signature

Name (typed or printed)

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Minor Source Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Warrick Power Plant, AGC Division of Alcoa Power Generating Inc.
Source Location:	4700 Darlington Road, Newburgh, IN 47629
County:	Warrick
SIC Code:	4911
Operation Permit No.:	173-6630-00002
Operation Permit Issuance Date:	Still Pending
Minor Source Modification No.:	173-14884-00002
Permit Reviewer:	NH/EVP

History

The power plant burns low and high sulfur coal. Presently, low sulfur coal is conveyed from barges to a truck loading hopper. In turn, trucks transport the low sulfur coal to a storage pile, drive onto the pile, and dump onto the pile. In order to reduce fugitive particulate emissions and improve safety concerns and due to truck traffic; the truck loading and hauling operation will be replaced by a conveying system. The truck loading hopper will be converted into a ground storage hopper that will discharge onto a new 95 foot long truss conveyor instead of into trucks. The new truss conveyor will discharge into a transfer tower. In turn, the transfer tower will discharge onto a new overland belt conveyor, 48 inches in width and 1455 feet in length (which is the approximate length of the present truck haul road). The overland conveyor will transfer low sulfur coal onto a new 150 foot radial stacking conveyor for direct delivery to the power plant, or for temporary placement in a storage pile. The present low sulfur coal stockpile will be moved to the discharge of the new stacking conveyor when coal must be stored in a stockpile on a temporary basis.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-7-5(16):

- (a) New truss belt conveyor, rated at 600 tons of coal per hour;
- (b) New overland belt conveyor receiving transfer tower, rated at 600 tons of coal per hour;
- (c) New overland belt conveyor, rated at 600 tons of coal per hour; and
- (d) New stacking conveyor, rated at 600 tons per hour.

Existing Approvals

The source applied for a Part 70 Operating Permit on September 19, 1996. The source has been operating under previous approvals including, but not limited to, the following:

- (a) Registration 173-3467-00002, issued on February 8, 1994;
- (b) Construction Permit 173-3769-00002, issued on September 12, 1994;
- (c) Acid Rain 173-5155-00002, issued on December 31, 1997; and
- (d) Acid Rain 173-11457-00002, issued on December 28, 1999.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 18, 2001.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (pages 1 through 3).

Potential To Emit Before Controls (Modification)

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	14.45
PM-10	6.57
SO ₂	--
VOC	--
CO	--
NO _x	--

Justification for Modification

The potential to emit of PM and PM10 is less than 25 tons per year but greater than 5 tons per

year, thus the Title V permit is being modified through a Minor Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(d)(4)(A). This Minor Source Modification will give the source approval to construct and operate the new emission unit.

County Attainment Status

The source is located in Warrick County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Warrick County has been designated as attainment or unclassifiable for ozone.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
New truss belt conveyor	0.72	0.33	--	--	--	--	--
New overland belt conveyor receiving transfer tower	0.29	0.13	--	--	--	--	--
New overland belt conveyor	0.72	0.33	--	--	--	--	--
New stacking conveyor	0.72	0.33	--	--	--	--	--
New radial stacking conveyor discharge	2.89	1.31					
Total Emissions	5.34	2.43	--	--	--	--	--
PSD Thresholds	25	15	N/A	N/A	N/A	N/A	N/A

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR

52.21, the PSD requirements do not apply.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is a Title V source and has applied for a Title V permit, so it has the potential to emit greater than 100 tons per year. Therefore, 326 IAC 2-6 does apply.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration)

This proposed modification is not considered a major modification because it has limited potential to emit less than applicable PSD significant emission levels for any regulated pollutant which makes the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from this modification shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

$$E = 55.0 (600)^{0.11} - 40 = 71.16 \text{ lbs PM/hr}$$

Based on the above equation, particulate matter emissions from this modification shall be limited to 71.16 pounds per hour for a maximum process rate of 600 tons of coal per hour.

Compliance calculation:

$$(14.45 \text{ tons PM/yr}) * (\text{yr}/8,760 \text{ hrs}) * (2,000 \text{ lbs/ton}) = 3.30 \text{ lbs PM/hr}$$

Controlled Compliance calculation:

$$(5.35 \text{ tons PM/yr}) * (\text{yr}/8,760 \text{ hrs}) * (2,000 \text{ lbs/ton}) = 1.22 \text{ lbs PM/hr}$$

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no compliance monitoring requirements applicable to this modification.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Quality (OAQ) Part 70 Application Form GSD-08.

None of the listed air toxics will be emitted from this proposed modification.

Conclusion

The construction and operation of this modification shall be subject to the conditions of the attached proposed **Minor Source Modification No. 173-14884-00002**.

Appendix A: Process Particulate Emissions

Page 1 of 3 TSD App. A

Company Name: Warrick Power Plant, AGC Division of Alcoa Power Generating Inc.
Address City IN Zip: 4700 Darlington Road, Newburgh, IN 47629
Title V Minor Source Modification: 173-14884
Pit ID: 173-00002
Reviewer: NH/EVP

The new conveying system will replace the transfer of coal into dump trucks, haul road emissions between the truck loading hopper (which will become the ground storage hopper) and the stockpile, and reduced emissions from the reduction in stockpile usage.

Based on AP-42 emission factors for aggregate handling, uncontrolled emissions are calculated as follows:

$$E = k (0.0032) \left[\left(\frac{U}{5} \right)^{1.3} \right] / \left[\left(\frac{M}{2} \right)^{1.4} \right] \text{ lb/ton}$$

where:

E = emission factor, lb/ton

k = particle size multiplier (dimensionless). Per AP-42, assume k = 0.74 for PM and 0.35 for PM10

U = mean wind speed, miles per hour (mph). Based on 2000 Evansville Weather Station data, U=6.8 mph

M = moisture content (%). Per AP-42, Table 13.2.4-1, the mean moisture content for power plant as-received coal was 4.5%

The uncontrolled coal handling emission factor is thus derived, as follows:

Particulates

$$E = 0.74 \times (0.0032) \times \left[\left(\frac{6.8}{5} \right)^{1.3} \right] / \left[\left(\frac{4.5}{2} \right)^{1.4} \right] = \mathbf{0.0011 \text{ lb/ton}}$$

PM10

$$E = 0.35 \times (0.0032) \times \left[\left(\frac{6.8}{5} \right)^{1.3} \right] / \left[\left(\frac{4.5}{2} \right)^{1.4} \right] = \mathbf{0.0005 \text{ lb/ton}}$$

Potential Emissions**A. Transfer Point, Ground Storage Hopper to New Truss Conveyor**

Maximum annual conveying rate will be 600 tons/yr. At 8760 hours per year of operation, the maximum potential low sulfur coal handling rate will be:

$$600 \text{ tons/yr} \times 8760 \text{ hr/yr} = 5256000 \text{ tons/yr}$$

Particulates

Uncontrolled emissions will be:

$$(5,256,000 \text{ tons/yr} \times 0.0011 \text{ lb/ton}) / 2000 \text{ lb/ton} = \mathbf{2.89 \text{ ton/yr}}$$

This transfer point will be enclosed. 75% control efficiency is assumed. Controlled emissions will thus be:

Controlled emissions will be:

$$2.89 \text{ tons/yr} \times [1 - (75/100)] = \mathbf{0.72 \text{ tons/yr}}$$

PM10

Uncontrolled emissions will be:

$$(5,256,000 \text{ tons/yr} \times 0.0005 \text{ lb/ton}) / 2000 \text{ lb/ton} = \mathbf{1.31 \text{ ton/yr}}$$

Controlled emissions will be:

$$1.31 \text{ ton/yr} \times [1 - (75/100)] = \mathbf{0.33 \text{ ton/yr}}$$

B. Transfer Point, New Truss Conveyor Discharge to New Transfer Tower

Maximum annual conveying rate will be 5,256,000 tons/yr

Particulates

Uncontrolled emissions will be:

$$(5,256,000 \text{ ton/yr} \times 0.0011 \text{ lb/ton}) / 2000 \text{ lb/ton} = \mathbf{2.89 \text{ ton/yr}}$$

This transfer point will be equipped with surfactant aided wet suppression. 90% control efficiency is assumed.

Controlled emissions will be:

$$2.89 \text{ ton/yr} \times [1 - (90/100)] = \mathbf{0.29 \text{ ton/yr}}$$

Appendix A: Process Particulate Emissions

Page 2 of 3 TSD App. A

Company Name: Warrick Power Plant, AGC Division of Alcoa Power Generating Inc.

Address City IN Zip: 4700 Darlington Road, Newburgh, IN 47629
Title V Minor Source Modification: 173-14884
Pit ID: 173-00002
Reviewer: NH/EVP

PM10

Uncontrolled emissions will be:

$(5,256,000 \text{ tons/yr} \times 0.0005 \text{ lb/ton}) / 2000 \text{ lb/ton} = 1.31 \text{ ton/yr}$

Controlled emissions will be:

$1.31 \text{ ton/yr} \times [1 - (90/100)] = 0.13 \text{ ton/yr}$

C. New Transfer Tower Discharge to New Overland Conveyor

Maximum annual conveying rate will be 5,256,000 tons/yr

Particulates

Uncontrolled emissions will be:

$(5,256,000 \text{ ton/yr} \times 0.0011 \text{ lb/ton}) / 2000 \text{ lb/ton} = 2.89 \text{ ton/yr}$

This transfer point will be enclosed. 75% control efficiency is assumed.

Controlled emissions will be:

$2.89 \text{ ton/yr} \times [1 - (75/100)] = 0.72 \text{ ton/yr}$

PM10

Uncontrolled emissions will be:

$(5,256,000 \text{ ton/yr} \times 0.0005 \text{ lb/ton}) / 2000 \text{ lb/ton} = 1.31 \text{ ton/yr}$

Controlled emissions will be:

$1.31 \text{ ton/yr} \times [1 - (75/100)] = 0.33 \text{ ton/yr}$

D. New Overland Conveyor Discharge to New Radial Stacking Conveyor

Maximum annual conveying rate will be 5,256,000 tons/yr

Particulates

Uncontrolled emissions will be:

$(5,256,000 \text{ tons/yr} \times 0.0011 \text{ lb/ton}) / 2000 \text{ lb/ton} = 2.89 \text{ ton/yr}$

This transfer point will be enclosed. 75% control efficiency is assumed.

Controlled emissions will thus be:

$2.89 \text{ ton/yr} \times [1 - (75/100)] = 0.72 \text{ ton/yr}$

PM10

Uncontrolled emissions will be:

$(5,256,000 \text{ ton/yr} \times 0.0005 \text{ lb/ton}) / 2000 \text{ lb/ton} = 1.31 \text{ ton/yr}$

Controlled emissions will be:

$1.31 \text{ ton/yr} \times [1 - (75/100)] = 0.33 \text{ ton/yr}$

Appendix A: Process Particulate Emissions

Page 3 of 3 TSD App. A

Company Name: Warrick Power Plant, AGC Division of Alcoa Power Generating Inc.
Address City IN Zip: 4700 Darlington Road, Newburgh, IN 47629
Title V Minor Source Modification: 173-14884
Pit ID: 173-00002

Reviewer: NH/EVP

E. New Radial Stacking Conveyor Discharge

Maximum annual conveying rate will be 5,256,000 tons/yr

Particulates

Uncontrolled emissions will be:

$(5,256,000 \text{ ton/yr} \times 0.0011 \text{ lb/ton}) / 2000 \text{ lb/ton} = 2.89 \text{ ton/yr}$

This transfer point will be uncontrolled

PM10

Uncontrolled emissions will be:

$(5,256,000 \text{ ton/yr} \times 0.0005 \text{ lb/ton}) / 2000 \text{ lb/ton} = 1.31 \text{ ton/yr}$

Total Potential Emissions, New Low Sulfur Coal Conveying System

Emission Point	Uncontrolled PM Emissions (tons/yr)	Controlled PM Emissions (tons/yr)	Uncontrolled PM10 Emissions (tons/yr)	Controlled PM10 Emissions (tons/yr)
New Truss Conveyor	2.89	0.72	1.31	0.33
Transfer Tower	2.89	0.29	1.31	0.13
Overland Conveyor	2.89	0.72	1.31	0.33
Stacking Conveyor	2.89	0.72	1.31	0.33
Conveyor Discharge	2.89	2.89	1.31	1.31
Total Emissions (tons/yr)	14.45	5.35	6.57	2.43